

January 23, 1950.

Dr. A. J. Weil,
Bronx Hospital,
New York.

Dear Dr. Weil:

Thank you very much for your consideration in sending the 4 coliforms which might be segregating for lactose-fermentation.

I must admit that I have plated these cultures twice on EMB lactose agar, and noticed only pure "+", and pure "-" colonies. May I take it that the slants were inoculated directly from mixed colonies, and that the latter might have been mixtures to begin with? Or have you handled them so that you have some confidence that there may be some cells in the cultures which give rise both to + and - colonies? In the latter event, I would certainly pursue them more intensively, but otherwise, it might be more reasonable to regard these cultures as merely mixed.

However these particular cultures come out, your interest is greatly appreciated. In fact, I would be very grateful if you could, without inconvenience to yourself, send me anything else along this line that may turn up from time to time, and without bothering yourself to verify the situation. I am, of course, not interested for the moment either in obvious mixed colonies clearly derived from the superimposition of different cells. These usually show up as a simple pattern

Nor am I concerned

with the ordinary "mutabile", with light "-" centers, and dark papillae or peripheral sectors. The types I am interested in would have rather dark centers, with indications of instability toward -. Depending on the degree of instability, there will be only an occasional - sector, or a fine interspersal of + and - sectors from a dark center, or perhaps a "bullseye" colony, with a dark center, and light periphery, perhaps with an occasional dark radial sector:

The photo shows better some of the intermediate types.

Thank you again for your kindness,

Sincerely,

Joshua Lederberg